Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1-9. (cancelled)

10. (currently amended) An apparatus for receiving data from a fiber channel, the apparatus comprising:

an input that receives a ~~wide band~~ wideband signal;

a plurality of mixers that accept the wideband signal and mix it with a mixer frequency;

a plurality of ~~low pass~~ low-pass filters that filter the outputs of the mixers;

a plurality of programmable demodulators each accepting the output of one of the mixers and demodulating said mixer output, thereby providing a demodulated digital output; and

a combiner circuit for combining the demodulated digital outputs from the plurality of programmable demodulators into at least one digital data stream.

11. (original) An apparatus as in claim 10 wherein the mixer frequency is a programmable frequency.

12. (currently amended) An apparatus as in claim 10 wherein the plurality of ~~low pass~~ low-pass filters have programmable ~~bandwith~~ bandwidth.

13. (original) An apparatus as in claim 10 wherein the programmable demodulators further comprise a control input that controls the type of demodulation applied to the signal accepted from the mixer.

14. (original) An apparatus as in claim 13 wherein the type of modulation selected consists essentially of BPSK, QPSK, and QAM.

15. (original) An apparatus as in claim 10 wherein the combiner circuit comprises a XGMII.

16-22. (cancelled)

23. (currently amended) An apparatus as in claim 10 further comprising:

at least one demodulator providing soft decisions as an output;

at least one trellis decoder that accepts soft decisions from the at least one demodulator and provides a trellis decoding of the soft outputs and provides a hard decision to the combiner ~~output~~ input.

24-25. (cancelled)

26. (new) A method of processing data received from a fiber channel, the method comprising:

receiving a wideband signal;

mixing the wideband signal with a mixer frequency to produce a plurality of mixed signals;

filtering the plurality of mixed signals with a plurality of low-pass filters to produce a plurality of baseband signals;

demodulating the plurality of baseband signals with a plurality of programmable demodulators, thereby providing a plurality of demodulated digital outputs; and

combining the demodulated digital outputs into at least one digital data stream.

27. (new) The method of claim 26 wherein the mixer frequency is a programmable frequency.

28. (new) The method of claim 26 wherein the plurality of low-pass filters have programmable bandwidth.

29. (new) The method of claim 26 wherein the programmable demodulators comprise a control input that controls the type of demodulation applied to the baseband signals.

30. (new) The method of claim 29 wherein the type of modulation selected consists essentially of BPSK, QPSK and QAM.

31. (new) The method of claim 26 wherein combining the demodulated digital outputs into at

least one digital data stream comprises combining the demodulated digital outputs into at least one digital data stream using a XGMII.

32. (new) The method of claim 26 wherein demodulating the plurality of baseband signals with a plurality of programmable demodulators, thereby providing a plurality of demodulated digital outputs comprises providing soft decisions as an output, the method further comprising:

providing a trellis decoding of the soft outputs and providing hard decisions to be combined into the at least one digital data stream.